3Com® Unified Gigabit Switch

DATA SHEET

Unified architecture delivers a single point of management for secure control of a voice-ready wired and wireless network, with 24 ports of Layer 2 Gigabit PoE switching and control of up to 24 wireless access points

OVERVIEW

The 3Com® Unified Gigabit Switch is the industry's first truly integrated and cost-effective Layer 2 Gigabit Power over Ethernet (PoE) switch that provides centralized management of both a wired and wireless network. This unified switch offers small-to-medium-sized businesses with 20 to 250 users a one-box solution that securely and efficiently supports mobile workers and fixed LAN connections.

KEY BENEFITS

CENTRALIZES MANAGEMENT OF WIRED AND WIRELESS IN ONE PLATFORM

The entire wired and wireless network can be managed through a single web management interface, with support for automatic discovery and configuration of access points (APs).

OFFERS COST-EFFECTIVE LAYER 2 SWITCHING FOR BOTH WIRED AND WIRELESS NETWORKING

No need to add specialized wireless switches or controllers—at extra cost—to the network, as the Unified Gigabit Switch controls both types of networks, autosensing the PoE power requirements of the device connected to the port.

This switch ships standard with full support for wireless access points and PoE on all 24 ports. There are no licensing fees or port fees ever required to utilize the full functionality.

DELIVERS GIGABIT SPEEDS

For top performance, this unified switch delivers 24 ports of wirespeed Gigabit throughput.

PROVIDES POWER OVER ETHERNET

The Unified Gigabit Switch provides inline power to attached devices—access points, Voice over IP (VoIP) phones, IP security cameras and more—via industry-standard IEEE 802.3af Power over Ethernet over a single Ethernet cable, resulting in significant cabling deployment cost savings. All 24 ports are supplied with full PoE.

PRIORITIZES VOICE TRAFFIC AUTOMATICALLY

Voice traffic from 3Com and other IP telephony systems can be automatically assigned to a voice-dedicated VLAN, helping to optimize this delay-sensitive traffic. Support for Wi-Fi® Multimedia (WMM®) assures quality of service for wireless VoIP traffic.

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KEY BENEFITS (CONTINUED)

SECURES THE NETWORK WITH ADVANCED, STANDARDS-BASED PROTECTION

The Unified Switch provides enhanced security features to ensure your wired and wireless data is protected. Support for WEP, WPA™ and WPA2™ AES encryption helps guarantee the privacy of your wireless network data. IEEE 802.1X authentication provides secure wired and wireless network logins.

EFFORTLESSLY ROAM BETWEEN ACCESS POINTS

The architecture of the Unified Switch brings AP configurations and support directly into the switch, allowing users to move between access points with seamless mobility and no loss of connectivity. Wireless devices retain their VLAN membership and IP address, providing uninterrupted communication.

FEATURES

UNIFIED ARCHITECTURE

Central management interface› Single IP address and web GUI management and configuration for all wired Ethernet devices and wireless access points and users reduces management overhead and helps lower total cost of ownership (TCO).

Managed access point control› Centrally maintained access point settings eliminate the need to individually configure each device's SSIDs, VLANs, access control lists and security settings.

PoE on every port› Tolly "First & Foremost" winner: full 15.4 watts of 802.3af compliant power on every port assures that every connection can provision every type of Ethernet standard device—3Com IntelliJack® switch, cameras, access points, VoIP phones and more.

10/100/1000 auto-detect ports› Switch design supports legacy Ethernet alongside newer gigabit Ethernet devices.

VoWiFi ready› Provides ability for voice over WLAN using real-time peer-to-peer communications over IEEE 802.11 infrastructure for cost savings.

CENTRALIZED WIRELESS AND RF MANAGEMENT

Centralized wireless policy› The 3Com Unified Gigabit Switch supports up to 24 access points deployed using same or different policies (security, VLAN, QoS) for employees and guest visitors.

Automatic discovery› Automatic discovery and configuration of supported access points minimizes the installation time and configuration of the wireless network.

Fast roaming› Quick handoff of user information and authorizations enables seamless roaming with session integrity and mobility robust enough to support voice traffic.

Load balancing› System adjusts user-to-AP ratio to maximize WLAN user throughput and performance.

SECURITY

IEEE 802.1X authentication› Centralized authentication control and management of all network users helps ensure that only authorized users access the network.

Enterprise-class encryption› Wi-Fi CERTIFIED™ radios using WPA and WPA2, AES, TKIP and WEP encryption help protect and secure all wireless communications.

Rogue AP detection and mitigation (IDS)› 802.11 radio frequency (RF) scans identify unauthorized access; the switch can then take mitigation actions.

Hierarchical and secure management› Delivers tiered management access to the unified switch via HTTPS, HTTP, Telnet CLI, SSH CLI and SNMP v1, 2c and 3.

Extensive VLAN and ACL capabilities› Provides scalable security and network design, while maintaining strict security and access control throughout the network.

LAYER 2 SWITCHING FOR WIRED AND WIRELESS NETWORKING

Device autosensing› The Unified Gigabit Switch autosenses the device—wired or wireless—connected to the port.

Gigabit speed› This switch delivers non-blocking 10/100/1000 wirespeed Gigabit throughput to handle bandwidth-hungry and speed-sensitive applications.

Traffic prioritization› IEEE 802.1p Class of Service (CoS) and automatic assignment of VoIP traffic to dedicated VLANs help ensure that critical time-sensitive traffic gets the priority needed for quality communications.

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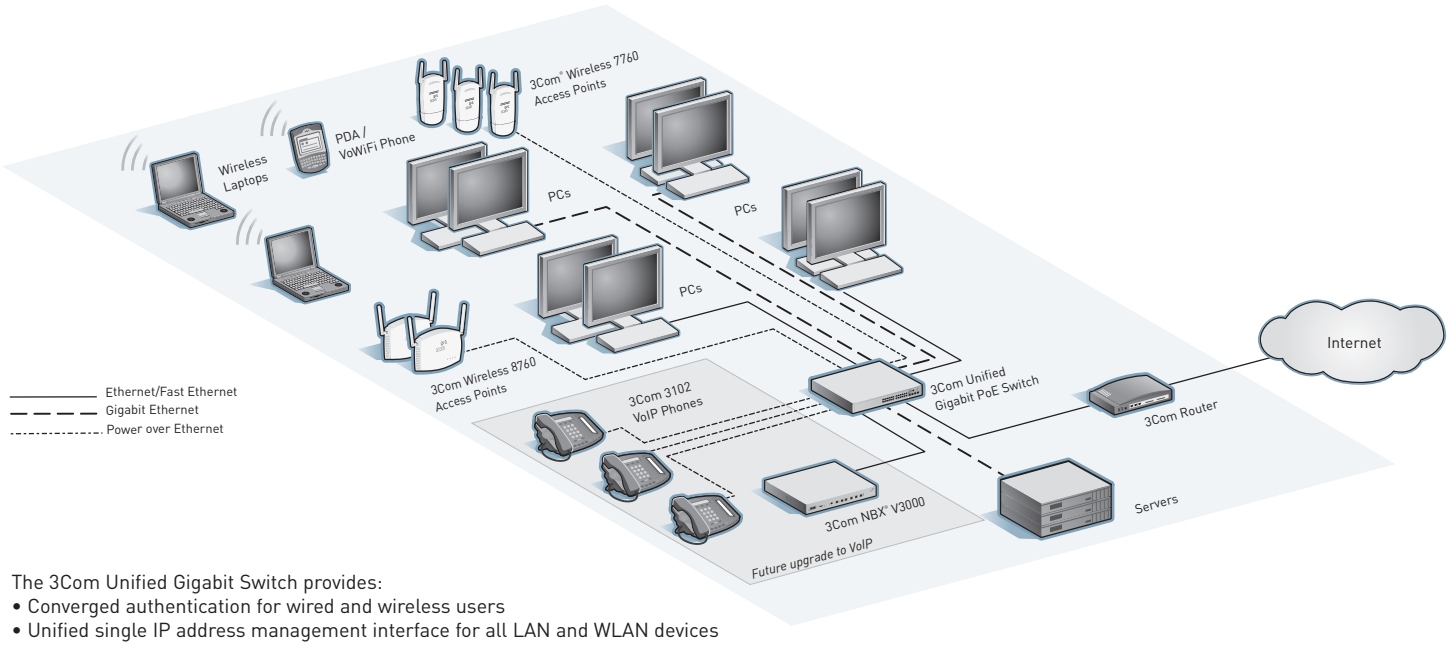
FIXED AND MOBILE ACCESS FOR USERS, VOICE-READY FOR THE FUTURE



The 3Com Unified Gigabit Switch provides:

- Converged authentication for wired and wireless users
- Unified single IP address management interface for all LAN and WLAN devices
- Centralized access point configuration and coordination
- Centrally managed PoE source for access points, IP phones and 802.3af devices
- Investment protection—ready for future implementation of Gigabit, wireless mobility, PoE and VoIP

VOICE READY NETWORK

The Unified Gigabit Switch is ready for voice over IP, offering:

- Automatic assignment of voice traffic to separate VLANs
- IEEE 802.1p prioritization and 802.1Q VLANS
- Centralized IEEE 802.11 AP management
- WPA/WPA2 and WEP wireless security
- IEEE 802.1X authentication
- Four dual-personality Gigabit SFP ports
- Seamless AP-to-AP wireless roaming

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SPECIFICATIONS

CONNECTORS
24 total available ports, comprised of:
20 auto-negotiating 10BASE-T/100BASE-TX/1000BASE-T ports configured as auto MDI/MDIX
4 dual-personality Gigabit port pairs, configurable as 10BASE-T/100BASE-TX/1000BASE-T or SFP

PERFORMANCE
48 Gbps, max.
Wirespeed performance across ports

LAYER 2 SWITCHING
8,196 MAC addresses in address table
256 port-based VLANs (IEEE 802.1Q); max.
IEEE 802.3ad Link Aggregation, Link Aggregation Control Protocol (LACP)
Auto-negotiation of port speed and duplex
IEEE 802.3x full-duplex flow control
IEEE 802.1D Spanning Tree Protocol (STP)
IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
Internet Group Management Protocol (IGMP) snooping on Layer 1 and 2 interfaces

CONVERGENCE
4 hardware queues per port
IEEE 802.1p Class of Service/Quality of Service (CoS/QoS)
Auto-voice VLAN for automatic vendor-independent segregation and prioritization of VoIP traffic
Wi-Fi Multimedia (WMM)
256 Access Control Lists (ACLs)
4 BSSIDs per radio
Diffserv Codepoint (DSCP)

SECURITY
Rogue AP detection and mitigation
IEEE 802.1X network login user authentication
EAP over LAN (EAPoL) transport with PEAP and EAP-TLS authentication
RADIUS server authentication (RFC 2618)
Local MAC authentication
Automatic VLAN assignment via RADIUS server
IEEE 802.1X user authentication of switch management on switch Telnet and console sessions; multiple access privilege levels
Hierarchical management and password protection for management interface

WIRELESS ENCRYPTION
WPA Personal and Enterprise
WPA 2 Personal and Enterprise
AES (CCMP): 128-bit (FIPS-197)
WEP 40/64- and 104/128-bit
TKIP: RC4 40-bit
SSL and TLS: RC4 128-bit and RSA 1024- and 2048-bit
EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, EAP-SIM

POWER OVER ETHERNET
IEEE 802.3af
15.4W per port, max.

ACCESS POINT SUPPORT
Ships with support for up to 24 of the below access points:
- 3Com Wireless 7760 11a/b/g PoE Access Point (3CRWE776075)
- 3Com Wireless 8760 Dual-Radio 11a/b/g PoE Access Point (3CRWE876075)

Max. 30 users per AP radio;
250 wireless clients max. per switch

ROAMING SUPPORT
Inter-AP roaming
Fast roaming
Dynamic load balancing

MANAGEMENT
Embedded GUI web management interface
CLI via console or Telnet
System configuration with SNMP v1, 2c and 3 encryption
SSH v2 encryption
Configuration file for backup and restore; dual configuration files available
Dual firmware images
Remote Monitoring (RMON) groups: statistics, history, alarm and events
Port mirroring/monitoring
System upgrade via HTTP and TFTP (RFC1350)
Syslog
SNTP

RADIO RESOURCE MANAGEMENT
Automatic channel assignment
Dynamic load balancing
Bandwidth management (WMM)

DIMENSIONS
Height: 4.4 cm (1.7 in or 1 RU)
Width: 44.0 cm (17.3 in)
Depth: 41.5 cm (16.3 in)
Weight: 5.9 kg (13.0 lb)

POWER SUPPLY
Input voltage: 100-240 VAC, 50/60 Hz
Current rating: 8A, max.
Power consumption: 465W, max.
Power dissipation: 207 BTU/hr, max.

ENVIRONMENTAL REQUIREMENTS
Operating temperature: 0° to 40°C (32° to 104°F)
Storage temperature: -40° to 70°C (-40° to 158°F)
Humidity (operating and storage): 10% to 95% non-condensing
Standard: EN 60068 (IEC 68)

RELIABILITY
MTBF: 36 years (315,000 hours)

LED INDICATORS
Port speed or PoE status, SFP module presence, fan, system

IEEE STANDARDS SUPPORTED
IEEE 802.1d Spanning Tree
IEEE 802.1p Priority Tags
IEEE 802.1Q VLANs
IEEE 802.1s Multiple Spanning Tree
IEEE 802.1X RADIUS
IEEE 802.1w Rapid Spanning Tree
IEEE 802.3 Ethernet
IEEE 802.3ab Gigabit Ethernet
IEEE 802.3ac VLAN tag
IEEE 802.3ad Link Aggregation
IEEE 802.3af Power over Ethernet
IEEE 802.3u Fast Ethernet
IEEE 802.3x Flow Control
IEEE 802.3z Gigabit Ethernet
IEEE 802.11a 54 Mbps, 5 GHz
IEEE 802.11b 5.5 and 11 Mbps, 2.4 GHz
IEEE 802.11d International roaming extensions
IEEE 802.11g 54 Mbps, 2.4 GHz
IEEE 802.11h Spectrum managed 802.11a
IEEE 802.11i Enhanced security

EMISSIONS / AGENCY APPROVALS
EN 55022 Class A
FCC Part 15 Subpart B Class A
ICES-003 Class A
VCCI Class A
CISPR 22 Class A
EN 61000-3-2, 61000-3-3

IMMUNITY
EN 55024, 60601-1-2

SAFETY AGENCY CERTIFICATIONS
UL 60950-1
EN 60950-1
CSA 2.22 # 60950-1
IEC 60950-1
EU RoHS Compliant

PACKAGE CONTENTS
Switch unit, power cord, self-adhesive rubber pads, rack-mount kit, Quick Start Guide, warranty flyer

SYSTEM PREREQUISITES
Windows PC with Internet Explorer version 6.0 or greater required for GUI web management
DHCP server

WARRANTY AND OTHER SERVICES
Three-year Hardware Warranty, including fans and power supply
Limited Software Warranty for 90 days
Advance Hardware Replacement with Next Business Day shipment in most regions
90 days of telephone technical support
Refer to **www.3com.com/warranty** for details.

ORDERING INFORMATION

PRODUCT DESCRIPTION	3COM SKU
3Com Unified Gigabit Wired and Wireless PoE Switch 24-Port	3CRUS2475
Transceivers	
3Com 1000BASE-SX SFP	3CSFP91
3Com 1000BASE-LX SFP	3CSFP92
Supported Access Points	
3Com Wireless 7760 11a/b/g PoE Access Point	3CRWE776075
3Com Wireless 8760 Dual-Radio 11a/b/g PoE Access Point	3CRWE876075
3Com Global Services	
3Com Wireless LAN Site Survey, Network Health Check, Installation Services and Express[SM] Maintenance	www.3com.com/services_quote
3Com University Courses	www.3com.com/3comu

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401001-005 02/08

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